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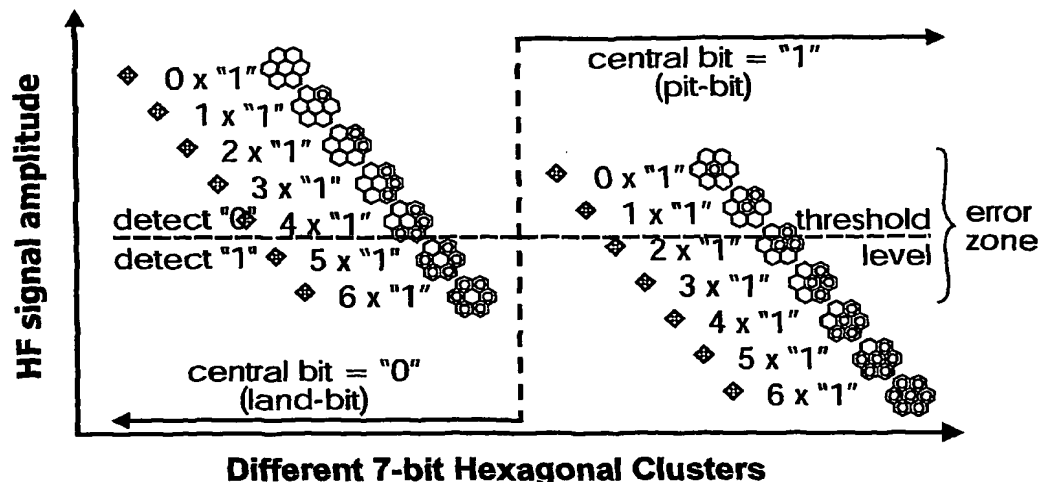
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(54) Title: BIT DETECTOR HAVING PARTITIONED PHOTO DETECTOR



(57) Abstract: The present invention relates to a bit detector for detecting the bit values of bits of a channel data stream stored on a record carrier, wherein the channel data stream comprises a channel strip of at least two bit rows one-dimensionally evolving along a first direction and aligned with each other along a second direction, said two directions constituting a two-dimensional lattice of bit positions. To improve the bit detection performance for 2D storage considerably a bit detector is proposed that comprises: - a photo detector for detecting light reflected from or transmitted through said record carrier in response to one or more incident light beams, each light beam being directed onto a position along said second direction, said photo detector being partitioned into at least two detector partitions for detecting part of the reflected or transmitted light and for generating partial HF signal values, and - a signal processing means for determining the bit values of the bits of said channel data stream from said partial HF signal values.



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